

```

A = 1; % Set the value of A
N = 10; % Set the number of terms to generate
b = zeros(N,1); % Preallocate the array to store the sequence
b(1) = A; % Set the initial value of the sequence
for n = 2:N
    b(n) = 0.5*(b(n-1) + A/b(n-1)); % Calculate the next term of
    ↪ the sequence
end
% Write the data to a file
fid = fopen('data.txt','w');
fprintf(fid,'%d\n',b);
fclose(fid);

```